

What is claimed is:

1. A method of charging a nonwoven web of thermoplastic microfibers to provide electret filter media comprising impinging on a nonwoven web of thermoplastic nonconductive microfibers capable of having a high quantity of trapped charge, jets of water or a stream of water droplets at a pressure sufficient to provide the web with filtration enhancing electret charge and drying said web.
2. The method of claim 1 wherein said jets of water are provided by a hydroentangling device.
3. The method of claim 1 wherein said stream of water droplets is provided by a nebulizer.
4. The method of claim 1 wherein said jets of water or stream of water droplets is provided at a pressure in the range of about 69 to 3450 kPa.
5. The method of claim 1 wherein said web is subjected to corona discharge treatment prior to impingement of said jets of water or said stream of water droplets.
6. The method of claim 1 wherein said web further contains staple fiber.
7. The method of claim 6 wherein said staple fiber comprises up to 90 weight percent of said web.
8. The method of claim 1 wherein said web has a basis weight of about 5 to 500 g/m².

9. The method of claim 1 wherein said web has a thickness of about 0.25 to 20 mm.
10. The method of claim 1 wherein said microfibers have an effective fiber diameter of about 3 to 30 μm .
11. The method of claim 1 wherein said microfibers are polypropylene, poly(4-methyl-1-pentene) or blends thereof.
12. The method of claim 1 wherein said microfibers comprise polypropylene and poly(4-methyl-1-pentene).
13. The method of claim 12 wherein the polypropylene and poly(4-methyl-1-pentene) are layered in said microfibers.
14. Electret filter media comprising a nonwoven web of thermoplastic nonconductive microfibers having trapped charge, said charge provided by (1) impingement of jets of water or a stream of water droplets on the web at a pressure sufficient to provide the web with filtration enhancing electret charge and (2) drying of the web.
15. A resilient cup-shaped filtration face mask adapted to cover the nose and mouth of the wearer of the mask comprising a nonwoven web of thermoplastic nonconductive microfibers having trapped charge, said charge provided by (1) impingement of jets of water or a stream of water droplets on the web at a pressure sufficient to provide the web with filtration enhancing electret charge and (2) drying of the web.

16. A respirator mask assembly comprising a facepiece comprising at least one inhalation port, inhalation valve, and inhalation filter and at least one exhalation port and exhalation valve, a face seal supported by the face piece and a harness for supporting the facepiece on a wearers head, said inhalation filter comprising a nonwoven web of thermoplastic nonconductive microfibers having trapped charge, said charge provided by (1) impingement of jets of water or a stream of water droplets on the web at a pressure sufficient to provide the web with filtration enhancing electret charge and (2) drying of the web.

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